Title (en)
METHOD OF CLASSIFYING PROTEIN/COMPOUND PAIRS

Title (de)
VERFAHREN ZUR KLASSIFIZIERUNG VON PROTEIN/VERBINDUNG-PAAREN

Title (fr)
PROCÉDÉ DE CLASSEMENT DE PAIRES DE PROTÉINES/COMPOSÉS

Publication
EP 2083265 A1 20090729 (EN)

Application
EP 07830970 A 20071031

Priority
• JP 2007071236 W 20071031
• JP 2006297111 A 20061031

Abstract (en)
The present invention has an object to provide a method for configuring a pattern classifier using versatile, readily available data, comprehensive protein data, and comprehensive chemical data and an object to provide a method for predicting an unknown interaction of a pair by the pattern classifier-configuring method. In particular, an interaction such as the coupling between a protein and a chemical is used as an index; at least one selected from four parameters that are the position of a peak in mass spectrum data obtained from each chemical, the set of the position and intensity of the peak, the distance between two peaks, and the set of the positions and intensities of the two peaks is vectorized for each of a first pair having a first interaction and a second pair having a second interaction; an amino acid sequence of each protein is vectorized; a vector containing elements of the vector derived from each protein and elements of the vector derived from each chemical paired with the protein is created; and a support vector machine (SVM) is applied to this vector and trained to learn them, whereby the pattern classifier is configured so as to discriminate between a class to which the first pair belong and a class to which the second pair belong.

IPC 8 full level
G01N 27/62 (2006.01); **G16B 40/30** (2019.01); **C40B 30/02** (2006.01); **G16B 20/30** (2019.01)

CPC (source: EP US)
G16B 20/30 (2019.01 - EP US); **G16B 40/00** (2019.01 - EP US); **G16B 40/30** (2019.01 - EP US); G16B 20/00 (2019.01 - EP US)

Citation (search report)
See references of WO 2008053924A1

Cited by
CN106528668A; CN104615911A; CN103577722A; WO2018072306A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 2083265 A1 20090729; JP 5211347 B2 20130612; JP WO2008053924 A1 20100225; US 2010070438 A1 20100318; US 8185321 B2 20120522; WO 2008053924 A1 20080508

DOCDB simple family (application)
EP 07830970 A 20071031; JP 2007071236 W 20071031; JP 2008542157 A 20071031; US 44781407 A 20071031